

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P232695

Luminaire Tested: **CTN-6-3-D-E1-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232695
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-19)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-6-3-D-E1-T3
Description: CELESTEON HIGH MAST LUMINAIRE
(6) 70 CRI, 4000K LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31240.9 lumens
Efficiency: N/A
Efficacy: 133.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 234
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

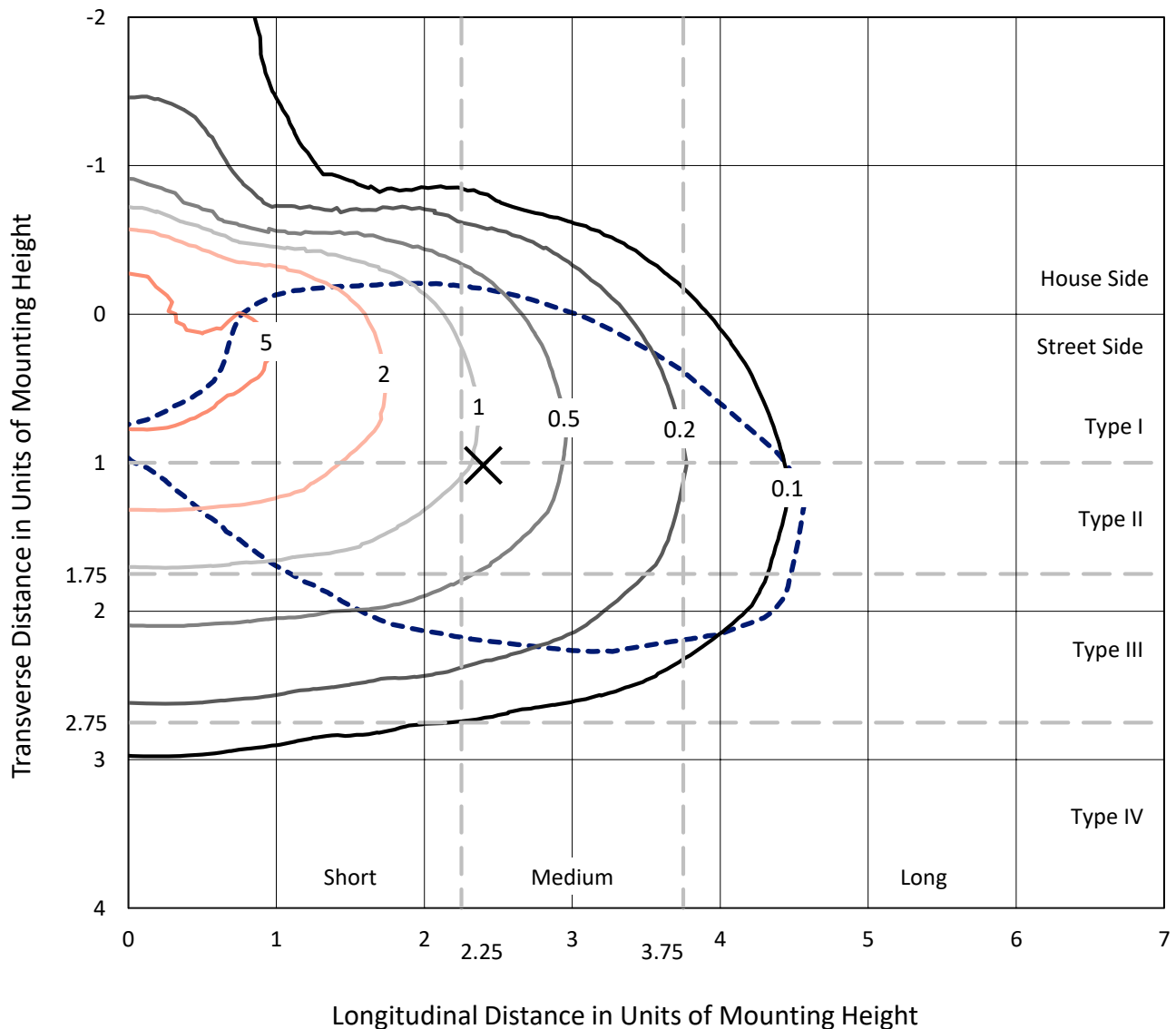


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

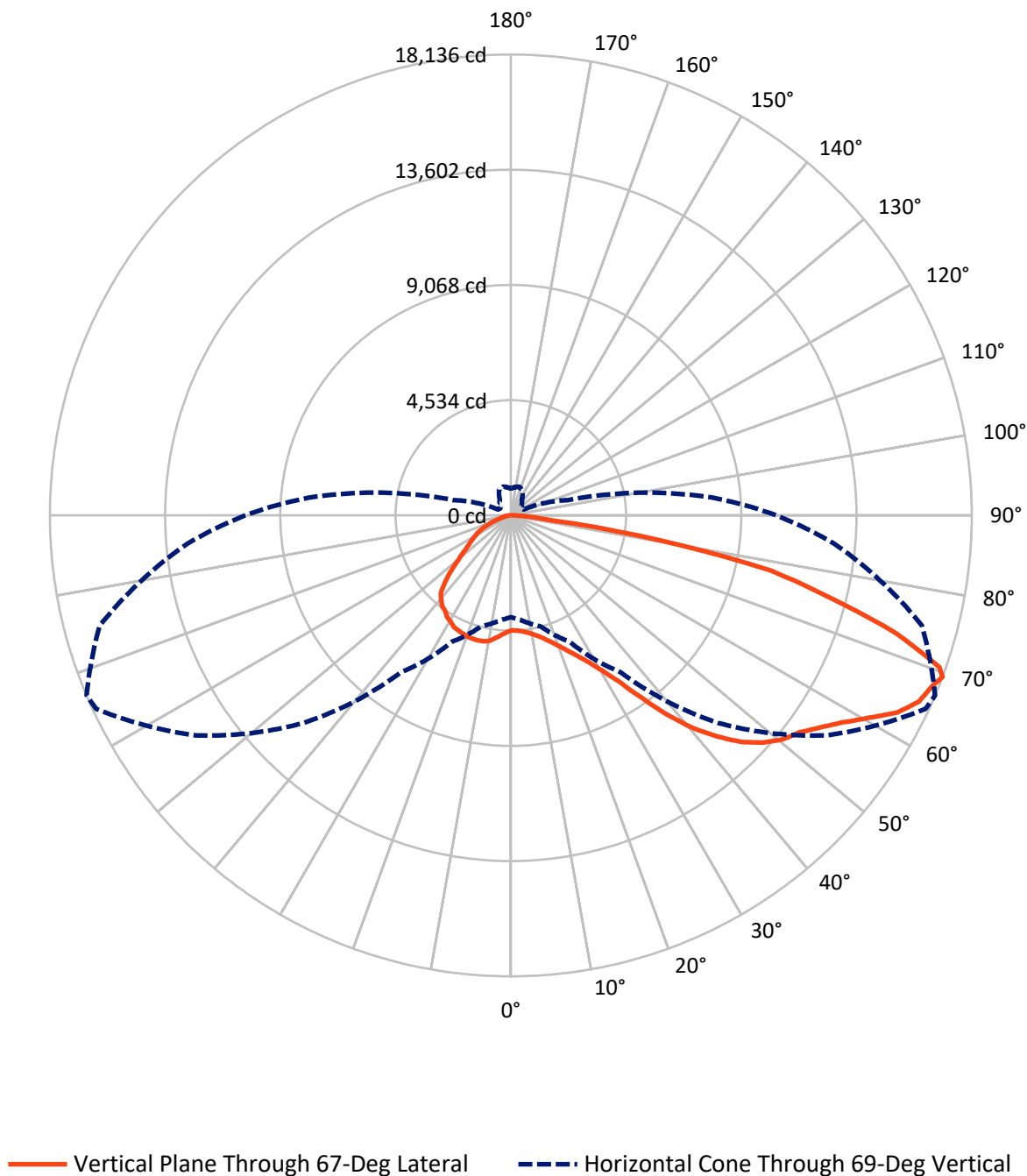


Based on 30 foot mounting height. Maximum calculated value = 6 fc
Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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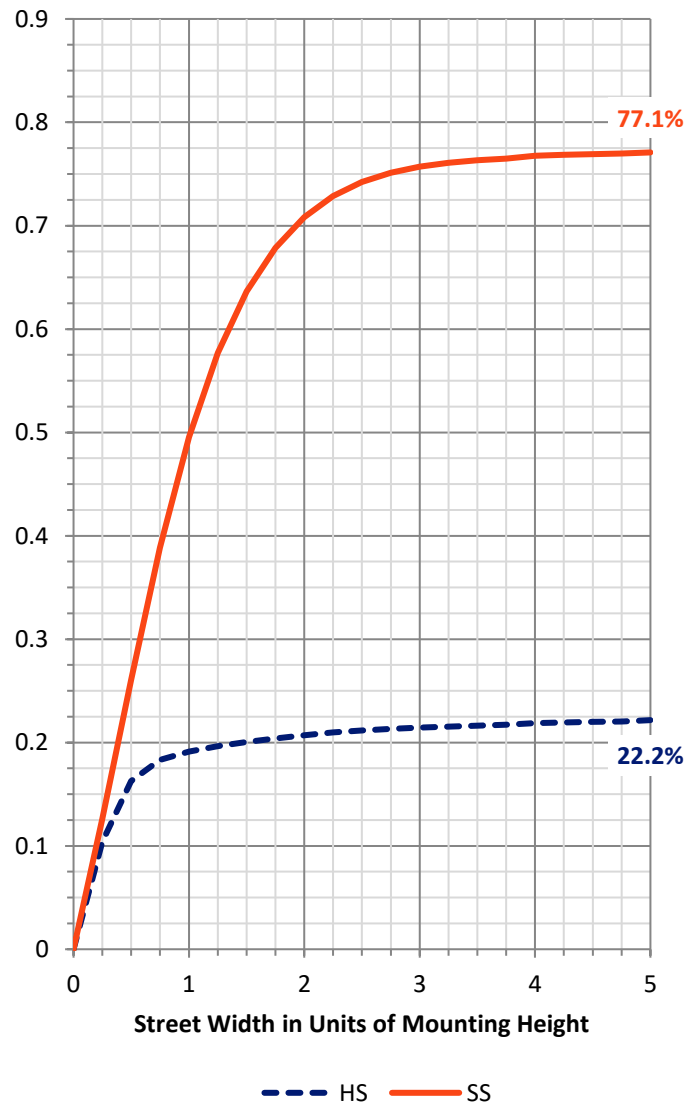
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7106.6	0.0	7106.6
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	24134.3	0.0	24134.3
	% Fixture	77.3	0.0	77.3
Total	Lumens	31240.9	0.0	31240.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	458.9	1.5
10°-20°	1474.0	4.7
20°-30°	2563.2	8.2
30°-40°	3861.2	12.4
40°-50°	5332.7	17.1
50°-60°	6364.6	20.4
60°-70°	6703.1	21.5
70°-80°	3932.1	12.6
80°-90°	551.1	1.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	31240.9	100.0
0°-180°	31240.9	100.0

Coefficient of Utilization



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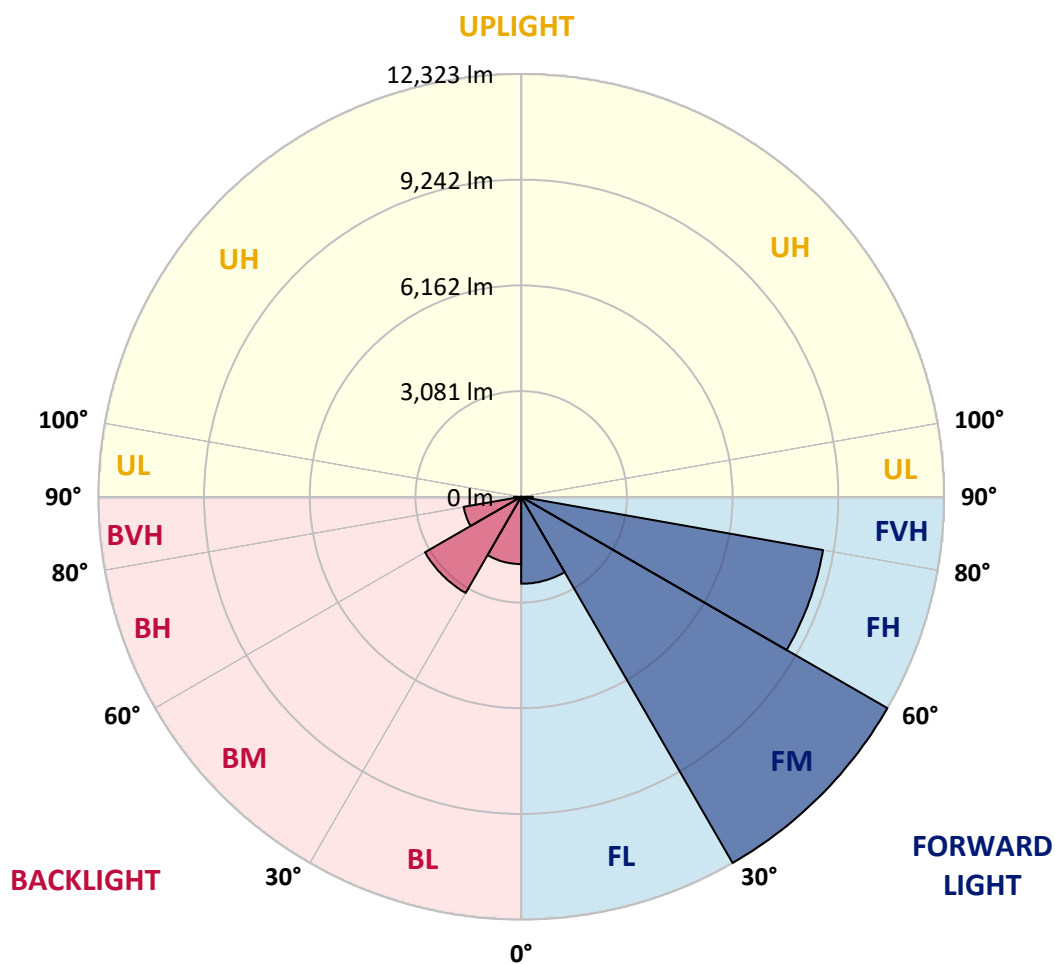
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2535.2	8.1			
FM	(30°-60°)	12323.1	39.4			
FH	(60°-80°)	8933.6	28.6			G4/12000
FVH	(80°-90°)	342.5	1.1			G3/500
BL	(0°-30°)	1961.0	6.3	B3/2500		
BM	(30°-60°)	3235.4	10.4	B3/5000		
BH	(60°-80°)	1701.6	5.4	B3/2500		G3/2500
BVH	(80°-90°)	208.6	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	4521	4521	4521	4521	4521	4521	4521	4521	4521	4521	4521
2.5°	4540	4546	4540	4530	4497	4512	4499	4541	4538	4522	4551
5°	4646	4653	4640	4632	4581	4588	4560	4583	4575	4548	4593
7.5°	4819	4826	4810	4799	4727	4711	4660	4667	4652	4609	4661
10°	5052	5058	5031	5004	4912	4873	4788	4774	4752	4710	4763
12.5°	5303	5312	5279	5244	5137	5073	4952	4909	4882	4831	4889
15°	5572	5583	5549	5509	5391	5292	5141	5076	5050	4986	5022
17.5°	5925	5922	5894	5839	5698	5553	5367	5270	5252	5190	5199
20°	6334	6320	6294	6218	6065	5885	5642	5519	5501	5449	5394
22.5°	6778	6764	6739	6642	6491	6255	5964	5819	5795	5730	5638
25°	7215	7200	7186	7094	6947	6679	6329	6144	6133	6067	5898
27.5°	7669	7660	7664	7585	7438	7160	6763	6562	6543	6459	6229
30°	8136	8138	8176	8092	7957	7677	7283	7078	7081	7006	6670
32.5°	8554	8556	8641	8599	8525	8246	7884	7740	7769	7763	7419
35°	8856	8869	9059	9116	9088	8845	8627	8662	8754	9014	8653
37.5°	9140	9145	9388	9520	9624	9478	9434	9766	9911	10271	9737
40°	9222	9291	9598	9782	10024	10096	10319	10810	10981	11198	10467
42.5°	9147	9245	9630	10067	10403	10760	11169	11725	11880	12014	11166
45°	8990	9065	9465	10119	10728	11436	11908	12574	12714	12627	11712
47.5°	8781	8838	9284	10036	10988	12042	12585	13255	13357	13154	12083
50°	8491	8559	9057	9922	11179	12549	13129	13767	13853	13482	12447
52.5°	8133	8218	8797	9728	11322	12927	13509	14108	14195	13954	12735
55°	7727	7845	8441	9492	11332	13128	13746	14608	14732	14472	12987
57.5°	7315	7391	8022	9131	11144	13195	14030	15190	15371	14974	13262
60°	6812	6885	7510	8648	10769	13298	14598	16023	16167	15559	13496
62.5°	6217	6300	6867	7987	10214	13340	15177	16909	17074	16091	13631
65°	5461	5553	6070	7187	9421	13042	15427	17564	17649	16499	13573
67.5°	4635	4711	5123	6192	8324	12265	15296	17806	17892	16776	13226
69°	4003	4120	4516	5483	7535	11554	15096	18005	18136	16745	12770
70°	3497	3628	3986	4858	6865	10816	14724	17854	17891	16446	12359
72.5°	2210	2253	2416	2996	4830	8408	12885	15850	15840	14673	10789
75°	1092	1148	1457	1682	2380	5408	10142	13018	13020	12384	8870
77.5°	656	680	759	1084	1360	2427	6884	10306	10464	10079	6383
80°	452	440	463	533	732	1276	2830	5826	5997	5531	2719
82.5°	356	346	353	371	349	591	1197	1742	1691	1491	1045
85°	249	229	242	235	208	347	582	724	719	743	569
87.5°	79	70	72	70	58	123	209	282	260	264	200
90°	0	0	0	0	0	0	0	0	0	0	0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4521	4521	4521	4521	4521	4521	4521	4521	4521	4521	4521
2.5°	4558	4550	4559	4606	4595	4636	4646	4713	4716	4710	4740
5°	4614	4622	4656	4731	4756	4844	4884	4966	4974	4977	5006
7.5°	4695	4709	4782	4880	4927	5042	5102	5203	5210	5221	5254
10°	4815	4835	4893	5027	5042	5133	5188	5275	5269	5284	5314
12.5°	4936	4947	4991	5083	5073	5162	5186	5243	5239	5238	5260
15°	5066	5047	5053	5088	5051	5106	5089	5131	5076	5054	5069
17.5°	5204	5158	5099	5073	5003	4994	4936	4916	4878	4866	4878
20°	5368	5270	5127	5052	4899	4820	4709	4644	4556	4563	4580
22.5°	5535	5397	5181	4980	4764	4604	4383	4324	4209	4175	4209
25°	5740	5555	5208	4916	4560	4275	4051	3842	3755	3670	3702
27.5°	6009	5759	5306	4837	4329	3949	3593	3323	3215	3124	3130
30°	6358	6032	5343	4671	4051	3502	3054	2754	2619	2582	2566
32.5°	7003	6472	5409	4550	3705	3016	2466	2144	2059	2075	2127
35°	8146	7393	5609	4297	3323	2486	1916	1667	1681	1710	1704
37.5°	9132	8224	5942	4119	2856	1883	1447	1315	1399	1456	1454
40°	9802	8830	6378	3786	2266	1342	1065	992	1099	1221	1242
42.5°	10467	9381	6589	3491	1591	947	771	790	927	1042	1063
45°	10945	9781	6682	2965	1016	725	673	743	891	982	992
47.5°	11296	10082	6581	2399	748	663	664	753	902	1005	1009
50°	11606	10294	6174	1871	673	642	677	782	934	1038	1035
52.5°	11818	10356	5680	1533	652	630	688	809	944	1014	1008
55°	11959	10263	5300	1262	634	629	706	843	954	982	968
57.5°	12046	10075	4979	1085	619	629	726	856	991	1042	1026
60°	12020	9991	4544	940	598	631	737	875	1140	1260	1263
62.5°	11968	9827	4119	825	573	643	751	985	1400	1401	1351
65°	11721	9333	3501	721	547	646	754	1166	1570	1438	1373
67.5°	11041	8610	2778	624	518	628	751	1141	1268	1135	1102
69°	10448	7983	2321	566	497	610	754	1094	1174	1095	1065
70°	10016	7475	1972	531	478	601	754	1077	1161	1086	1057
72.5°	8597	5872	1182	443	423	566	747	1051	1171	1107	1069
75°	6586	4271	688	364	356	508	710	1035	1205	1108	1025
77.5°	4220	1971	513	296	289	440	663	983	1238	1162	1057
80°	1466	894	383	234	224	360	581	886	1179	1187	1108
82.5°	804	589	271	174	165	226	452	764	1091	1175	1181
85°	442	332	178	112	126	194	313	594	878	1021	1066
87.5°	179	120	70	44	52	77	106	304	530	684	753
90°	0	0	0	0	0	0	0	0	0	0	0

LM-79-08: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

STREETWORKS

Report Number: SP1-2104-215-1

Luminaire Tested: CST-CA6-230-740-U-T4

Test Date: 04/20/2021

Test Information

Test Method: LM-79-08
 Report Number: SP1-2104-215-1
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1
 Measurement Geometry: 4π
 Issue Date: 04/20/2021
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: STREETWORKS
 Catalog Number: **CST-CA6-230-740-U-T4**
 Description: STREETWORKS HIGH MAST LUMINAIRE

230W

Spectral Parameters

CCT (K):	3783	CRI (Ra):	75.1		
CIE u':	0.2297	R1:	72.8	R9:	-19.0
CIE v':	0.5046	R2:	81.9	R10:	57.0
Duv:	-0.0008	R3:	89.0	R11:	70.7
CIE x:	0.3897	R4:	74.1	R12:	48.2
CIE y:	0.3804	R5:	72.3	R13:	74.4
CIE z:	0.2299	R6:	74.5	R14:	93.7
Peak Wavelength (nm):	450	R7:	81.7		
Dominant Wavelength (nm):	580	R8:	54.6		
Purity:	31.3				
Rf:	76.5				
Rg:	95.6				



Test Conditions

Stabilization Time: 47M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 25.5/39%
 Sphere Temperature (°C): 24.0

REPORT NUMBER: SP1-2104-215-1

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	1/31/2021	7/31/2021
Power Meter	IN0071	12/1/2020	12/1/2021
AC Power Source	IN0063	12/1/2020	12/1/2021
DC Power Source	IN0208	12/1/2020	12/1/2021
Sphere Thermometer	IN0085	12/1/2020	12/1/2021
Room Thermometer	IN0046	12/1/2020	12/1/2021

REPORT NUMBER: SP1-2104-215-1

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 7-step quadrangle

REPORT NUMBER: SP1-2104-215-1

Photopic Flux vs. Wavelength



#####

λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)
360	13329	0.0	490	105235	15.0	620	524343	136.4	750	24224	0.0	880	16135	0.0
365	11697	0.0	495	137678	25.0	625	488932	107.9	755	22376	0.0	885	16876	0.0
370	10917	0.0	500	186689	41.2	630	445400	80.6	760	20109	0.0	890	13554	0.0
375	12548	0.0	505	244611	68.4	635	403534	60.6	765	18097	0.0	895	11525	0.0
380	13932	0.0	510	298987	102.7	640	366414	43.8	770	17366	0.0	900	14656	0.0
385	13265	0.0	515	348170	144.2	645	331272	31.9	775	16226	0.0	905	11999	0.0
390	11808	0.0	520	390427	189.3	650	297360	21.7	780	14803	0.0	910	12965	0.0
395	10395	0.0	525	421211	226.1	655	263291	15.1	785	15199	0.0	915	15939	0.0
400	9348	0.0	530	446063	262.6	660	232931	9.7	790	12989	0.0	920	16238	0.0
405	9479	0.0	535	465110	288.4	665	204719	6.5	795	12106	0.0	925	14419	0.0
410	12414	0.0	540	479189	312.2	670	177096	3.9	800	12942	0.0	930	14788	0.0
415	21574	0.0	545	495864	330.0	675	153254	2.6	805	13253	0.0	935	18619	0.0
420	41448	0.1	550	516625	351.1	680	132874	1.5	810	12808	0.0	940	13995	0.0
425	79385	0.4	555	538555	367.8	685	115378	1.0	815	12903	0.0	945	18047	0.0
430	141845	1.1	560	562412	382.2	690	100157	0.6	820	12621	0.0	950	21418	0.0
435	231290	2.7	565	585835	389.5	695	85561	0.4	825	13903	0.0	955	23138	0.0
440	374482	5.9	570	608681	395.8	700	75396	0.2	830	11870	0.0	960	13665	0.0
445	596715	12.4	575	629563	391.7	705	65658	0.1	835	11069	0.0	965	14793	0.0
450	719656	18.7	580	646820	384.3	710	58172	0.1	840	15291	0.0	970	14396	0.0
455	530438	17.8	585	659231	366.3	715	52563	0.1	845	15125	0.0	975	11155	0.0
460	330446	13.5	590	665630	344.2	720	47085	0.0	850	15336	0.0	980	17987	0.0
465	241999	12.5	595	656228	311.1	725	41741	0.0	855	15791	0.0	985	16185	0.0
470	167096	10.4	600	646946	278.8	730	37415	0.0	860	14660	0.0	990	22120	0.0
475	113791	8.9	605	628643	243.4	735	32125	0.0	865	12528	0.0	995	11943	0.0
480	96126	9.1	610	599057	205.8	740	29322	0.0	870	14089	0.0	1000	16020	0.0
485	94467	11.2	615	565669	170.8	745	26862	0.0	875	11732	0.0			

REPORT NUMBER: SP1-2104-215-1

Scotopic Flux vs. Wavelength



Scotopic Lumens: 54268.8

S/P: 1.5

λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)
360	13329	0.0	490	105235	162.0	620	524343	6.6	750	24224	0.0	880	16135	0.0
365	11697	0.0	495	137678	222.6	625	488932	4.1	755	22376	0.0	885	16876	0.0
370	10917	0.0	500	186689	312.3	630	445400	2.5	760	20109	0.0	890	13554	0.0
375	12548	0.0	505	244611	415.8	635	403534	1.5	765	18097	0.0	895	11525	0.0
380	13932	0.0	510	298987	506.8	640	366414	0.9	770	17366	0.0	900	14656	0.0
385	13265	0.0	515	348170	577.1	645	331272	0.6	775	16226	0.0	905	11999	0.0
390	11808	0.0	520	390427	620.6	650	297360	0.3	780	14803	0.0	910	12965	0.0
395	10395	0.1	525	421211	630.1	655	263291	0.2	785	15199	0.0	915	15939	0.0
400	9348	0.1	530	446063	615.0	660	232931	0.1	790	12989	0.0	920	16238	0.0
405	9479	0.3	535	465110	579.6	665	204719	0.1	795	12106	0.0	925	14419	0.0
410	12414	0.7	540	479189	529.5	670	177096	0.0	800	12942	0.0	930	14788	0.0
415	21574	2.2	545	495864	475.4	675	153254	0.0	805	13253	0.0	935	18619	0.0
420	41448	6.8	550	516625	422.4	680	132874	0.0	810	12808	0.0	940	13995	0.0
425	79385	19.4	555	538555	368.0	685	115378	0.0	815	12903	0.0	945	18047	0.0
430	141845	48.3	560	562412	314.4	690	100157	0.0	820	12621	0.0	950	21418	0.0
435	231290	103.4	565	585835	262.8	695	85561	0.0	825	13903	0.0	955	23138	0.0
440	374482	209.3	570	608681	214.8	700	75396	0.0	830	11870	0.0	960	13665	0.0
445	596715	399.6	575	629563	171.5	705	65658	0.0	835	11069	0.0	965	14793	0.0
450	719656	557.8	580	646820	133.3	710	58172	0.0	840	15291	0.0	970	14396	0.0
455	530438	463.5	585	659231	100.8	715	52563	0.0	845	15125	0.0	975	11155	0.0
460	330446	319.2	590	665630	74.1	720	47085	0.0	850	15336	0.0	980	17987	0.0
465	241999	255.6	595	656228	52.3	725	41741	0.0	855	15791	0.0	985	16185	0.0
470	167096	192.4	600	646946	36.5	730	37415	0.0	860	14660	0.0	990	22120	0.0
475	113791	142.3	605	628643	24.7	735	32125	0.0	865	12528	0.0	995	11943	0.0
480	96126	129.8	610	599057	16.2	740	29322	0.0	870	14089	0.0	1000	16020	0.0
485	94467	136.9	615	565669	10.5	745	26862	0.0	875	11732	0.0			

REPORT NUMBER: SP1-2104-215-1

Melanopic Flux vs. Wavelength



Melanopic Lumens: 20938.3 **M/P: 0.58**

λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)
360	13329	0.0	490	105235	87.6	620	524343	0.4	750	24224	0.0	880	16135	0.0
365	11697	0.0	495	137678	113.7	625	488932	0.3	755	22376	0.0	885	16876	0.0
370	10917	0.0	500	186689	150.1	630	445400	0.2	760	20109	0.0	890	13554	0.0
375	12548	0.0	505	244611	187.7	635	403534	0.1	765	18097	0.0	895	11525	0.0
380	13932	0.0	510	298987	214.7	640	366414	0.1	770	17366	0.0	900	14656	0.0
385	13265	0.0	515	348170	227.5	645	331272	0.0	775	16226	0.0	905	11999	0.0
390	11808	0.0	520	390427	227.3	650	297360	0.0	780	14803	0.0	910	12965	0.0
395	10395	0.1	525	421211	213.6	655	263291	0.0	785	15199	0.0	915	15939	0.0
400	9348	0.1	530	446063	192.8	660	232931	0.0	790	12989	0.0	920	16238	0.0
405	9479	0.2	535	465110	167.4	665	204719	0.0	795	12106	0.0	925	14419	0.0
410	12414	0.5	540	479189	140.2	670	177096	0.0	800	12942	0.0	930	14788	0.0
415	21574	1.4	545	495864	115.2	675	153254	0.0	805	13253	0.0	935	18619	0.0
420	41448	4.7	550	516625	92.7	680	132874	0.0	810	12808	0.0	940	13995	0.0
425	79385	12.4	555	538555	72.6	685	115378	0.0	815	12903	0.0	945	18047	0.0
430	141845	30.0	560	562412	55.5	690	100157	0.0	820	12621	0.0	950	21418	0.0
435	231290	61.7	565	585835	41.1	695	85561	0.0	825	13903	0.0	955	23138	0.0
440	374482	125.1	570	608681	29.7	700	75396	0.0	830	11870	0.0	960	13665	0.0
445	596715	235.4	575	629563	21.0	705	65658	0.0	835	11069	0.0	965	14793	0.0
450	719656	331.6	580	646820	14.5	710	58172	0.0	840	15291	0.0	970	14396	0.0
455	530438	277.9	585	659231	9.8	715	52563	0.0	845	15125	0.0	975	11155	0.0
460	330446	194.7	590	665630	6.5	720	47085	0.0	850	15336	0.0	980	17987	0.0
465	241999	158.1	595	656228	4.2	725	41741	0.0	855	15791	0.0	985	16185	0.0
470	167096	119.6	600	646946	2.7	730	37415	0.0	860	14660	0.0	990	22120	0.0
475	113791	86.9	605	628643	1.7	735	32125	0.0	865	12528	0.0	995	11943	0.0
480	96126	77.2	610	599057	1.1	740	29322	0.0	870	14089	0.0	1000	16020	0.0
485	94467	77.9	615	565669	0.7	745	26862	0.0	875	11732	0.0			

Summary

$R_f = 76.5$
 $R_g = 95.6$
 CIE $R_a = 75.1$
 $R_g = -19.0$



Color Vector Graphics



Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 66	CES51 = 90	CES76 = 56
CES02 = 61	CES27 = 89	CES52 = 89	CES77 = 73
CES03 = 31	CES28 = 83	CES53 = 81	CES78 = 58
CES04 = 70	CES29 = 69	CES54 = 87	CES79 = 84
CES05 = 48	CES30 = 84	CES55 = 86	CES80 = 81
CES06 = 51	CES31 = 72	CES56 = 77	CES81 = 79
CES07 = 40	CES32 = 64	CES57 = 77	CES82 = 92
CES08 = 39	CES33 = 79	CES58 = 77	CES83 = 90
CES09 = 29	CES34 = 73	CES59 = 87	CES84 = 87
CES10 = 74	CES35 = 85	CES60 = 90	CES85 = 78
CES11 = 57	CES36 = 91	CES61 = 84	CES86 = 73
CES12 = 63	CES37 = 81	CES62 = 87	CES87 = 79
CES13 = 42	CES38 = 94	CES63 = 75	CES88 = 83
CES14 = 74	CES39 = 96	CES64 = 69	CES89 = 73
CES15 = 71	CES40 = 91	CES65 = 66	CES90 = 83
CES16 = 47	CES41 = 94	CES66 = 63	CES91 = 76
CES17 = 49	CES42 = 82	CES67 = 60	CES92 = 62
CES18 = 56	CES43 = 78	CES68 = 68	CES93 = 77
CES19 = 72	CES44 = 99	CES69 = 76	CES94 = 57
CES20 = 65	CES45 = 86	CES70 = 60	CES95 = 69
CES21 = 86	CES46 = 84	CES71 = 54	CES96 = 79
CES22 = 78	CES47 = 87	CES72 = 85	CES97 = 86
CES23 = 92	CES48 = 80	CES73 = 52	CES98 = 79
CES24 = 91	CES49 = 82	CES74 = 94	CES99 = 69
CES25 = 72	CES50 = 90	CES75 = 56	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)